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Barry W. Chapin, Esq.  
Chapin & Huang, L.L.C.  
Westborough Office Park  
1700 West Park Drive  
Westborough, MA 01581

EXAMINER

JARRETT, SCOTT L

ART UNIT	PAPER NUMBER
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3623

DATE MAILED: 11/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 09/759,540	Applicant(s) SRINIVASAN, SUBRAMANIAN	
	Examiner Scott L. Jarrett	Art Unit 3623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 12 September 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-12, 14-27 and 30-34 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12, 14-27 and 30-34 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. This non-final office action is in response to the Applicant's Request for Continued Examination filed September 12, 2005 wherein Applicant amended claims 1-12, 14-27 and 30-34 and canceled claim 29 (claims 13 and 28 being previously canceled). Currently claims 1-12, 14-27 and 30-34 are pending.

### ***Response to Arguments***

2. Applicant's arguments filed September 12, 2005 with respect to pending claim 1-12, 14-27 and 30-34 have been considered but are moot in view of the new ground(s) of rejection.

It is noted that the applicant did not challenge the Official Notice(s) cited in the Office Actions dated November 23, 2004 and/or April 11, 2005 therefore those statements as presented are herein after prior art. Specifically it has been established that it was old and well known in the art at the time of the invention:

- to use object-oriented programming (OOP, OO) to build business systems;
- to use design patterns including but not limited to composite/compound objects and observer patterns when building business systems;
- the use of a plurality of methods for comparing objects (attributes, properties, values, etc.; invoking comparison logic) and generating results indicating differences from the comparison as well as that any comparison of two or more objects (orders) which inherently provide a mechanism for identifying the objects to be compared;

- to provide objects with the ability to recognize, record and signal when changes to the objects properties/attributes occur (e.g. observer pattern);

- that there are a plurality of commonly used approaches (methods, techniques, etc.) for creating new and/or modified objects based on existing (peer) objects one such approach being copy-then-modify approaches including such techniques as deep/shallow copy;

- to use program control structures (for, while, if-then-else, for-each, etc.) to iteratively/recursively process a set/collection of objects/information;

- to provide a mechanism for capturing the evolution of an object or transaction, more specifically to capture snapshots of the item before and after modifications are made or transactions take place;

- that when performing a series of operations whose ultimate goal is to produce a result (document, numerical value, method call, etc...) to either generate that result concurrent with the performance of each iterative step or after all the steps have been completed;

- that Electronic Data Interchange (EDI) standard supports the order management process specifically the creation of purchase orders and the handling of purchase change orders;

- that EDI provides for the inter-organizational electronic exchange of business documents in a structured, machine-processable format; i.e. EDI provides a "language" specially designed for the processing, definition and presentation of text (markup language); and

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- that at either end of an EDI transaction is a translation component which converts the standard EDI format for the transaction into the business specific format necessary for completion of the transaction thereby enabling companies to transact in a common "language" (text, markup, format, etc.).

***Title***

3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: Method and System for Processing Changes To Existing Purchase Orders in an Object-Oriented Order Processing System.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 14-15, 30 and 32-33 are rejected under 35 U.S.C. 102(b) as being anticipated by Marcam Solutions, Inc., WO 99/57664 (Marcam, November 1999).

Regarding Claims 1, 14-15, 30 and 32-33 Marcam teaches an automated order/transaction processing system and method comprising customer purchase orders objects; an event generator for identifying and indicating/signaling changes to the order objects; action servers for executing the events; an order database and a user interface or other “change-effecting” application/program/system (Abstract; Page 2, Last Paragraph; Page 3, Paragraph 1; “...each transaction is represented by a set of objects including an order object...”, Paragraph 2, Page 4; Paragraph 3, Page 4; Pages 44-45; Figure 1, Element 16; Figures 1-3, 15).

More specifically Marcam teaches a method and system for processing changes to purchase orders (orders of items for sales) in an object-oriented order processing (management) system comprising:

- receiving a change (update, revisions, modification, change request, etc.) to an existing order (order object containing references/links to a collection/set of objects, compound/composite object, identity of an existing order – order ID) as a result of a

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customer request "...were the sales representative to update the quantities of goods specified in the order, the event generator could generate an event object that would result in an action for updating the delivery price. Processing of that action may result in new cascaded events.", Paragraph 1, Page 4; Paragraphs 3-4, Page 4; Paragraphs 2-4; Page 45; Figure 1, Element 16; Pages 71; Pages 114-116; "Category of Events", "Attribute Value Change", Page 119);

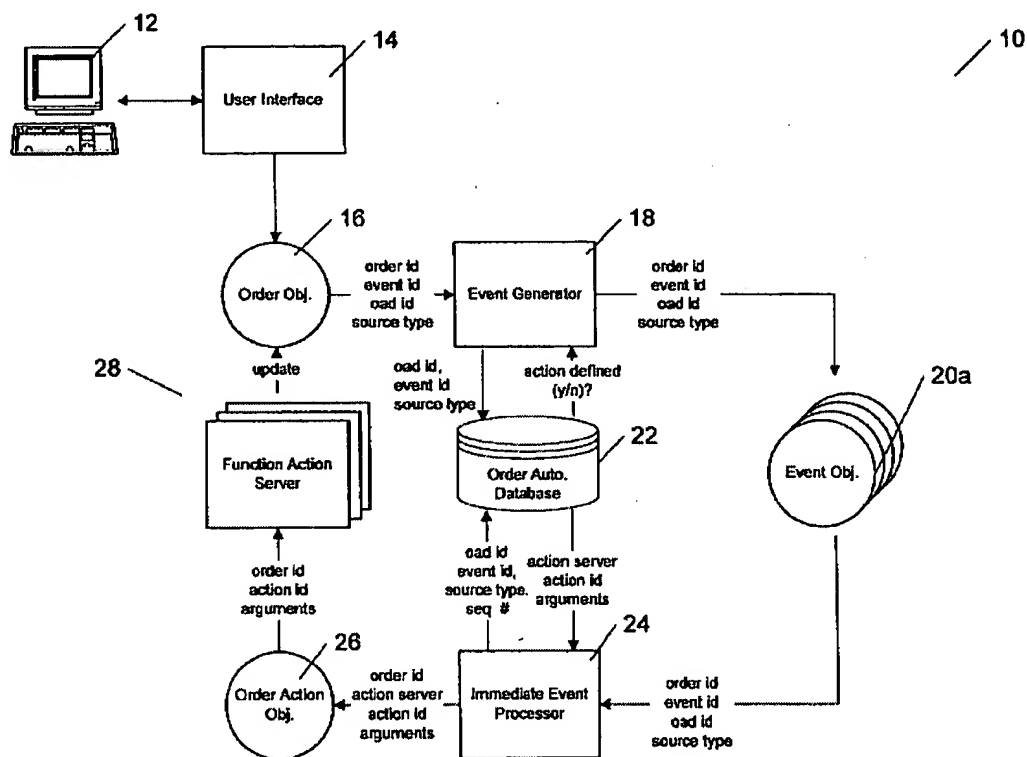
- generating a change order/request (action, event), containing the change, based on the existing purchase order (Pages 47-48; Last Paragraph, Page 50; Paragraphs 1-3, Pages 51, 71, 76-78; 114-116);

- generating a result (output, data, information, etc.) indicating the differences (changes, revisions, updates, etc.) to the original/existing purchase order by comparing the change request/change order (order changes) to the existing purchase order ("An Order Pricing Example", Pages 76-78, 114-115; Figure 7);

- determining if any attributes in the existing purchase order are changed (impacted, effected, etc.) by the change request/order and if any attributes are effected then indicating the differences/changes to those attributes in the change order (triggering condition/event/object; Last Paragraph, Page 53; Paragraphs 1-2, Page 54; ; Page 55; "An Order Pricing Example", Pages 76-78, 114-116; Figures 5, 7);

- providing (outputting, displaying, sending, etc.) the change order result to a customer such that the customer is able to distinguish (recognize, determine, view, etc.) the differences between the existing order and the changed purchase order ("An Order Pricing Example", Pages 76-78, 103, 114-116; Figures 5, 7, 15).

Marcam further teaches that the order processing system and method comprises a memory for storing the plurality of order information (objects, parameters, etc.), a processor for executing/processing the orders/change requests and interfaces between the memory and the processor (update server; Page 44, 71-73; Figures 1-3).



### Figure 1



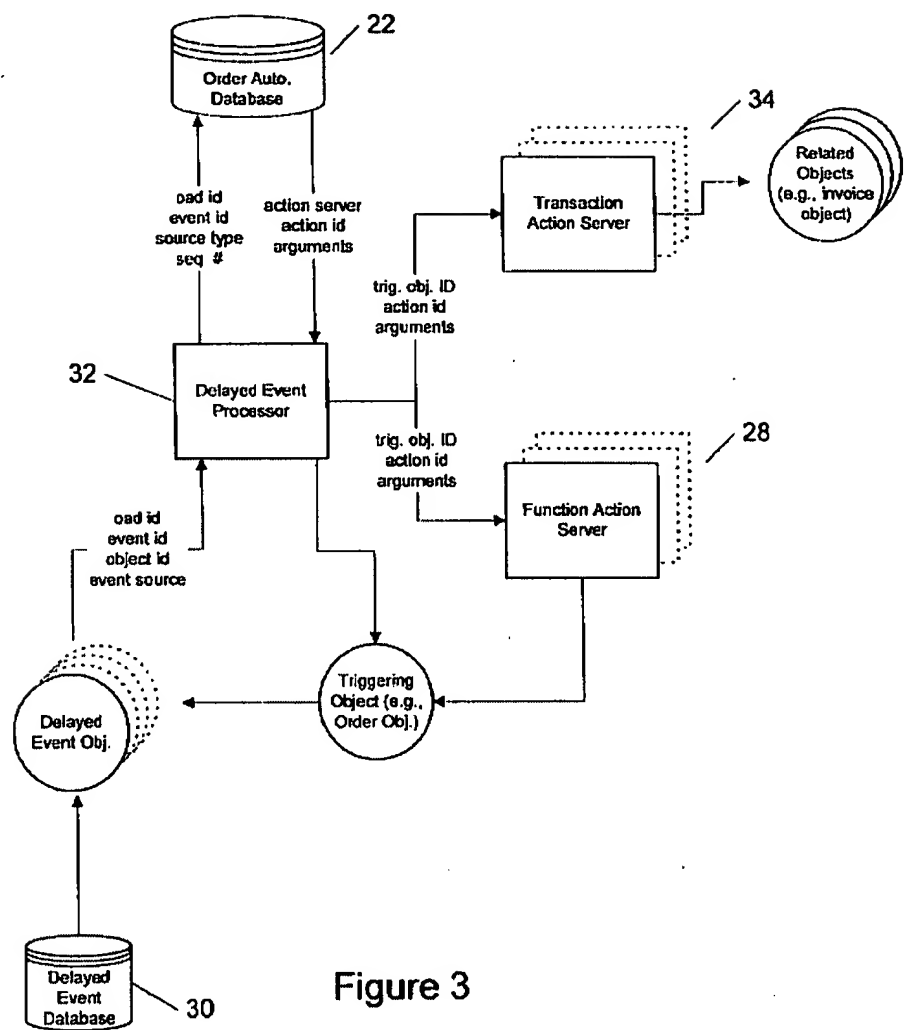


Figure 3

For instance the event set generated during the maintenance of the following delivery

Order 123, Line 1, Delivery 1			
Attribute	Was	Change	Event
Quantity	100	90	Delivery Quantity Updated (minor)
Ship-To Trading Partner			
	001	003	Ship-To Trading Partner Updated (minor)
Delivery Priority			
	5	3	Delivery Priority Updated (minor)
Delivery Maintained (major)			

Figure 1: Screen Shot Page 115

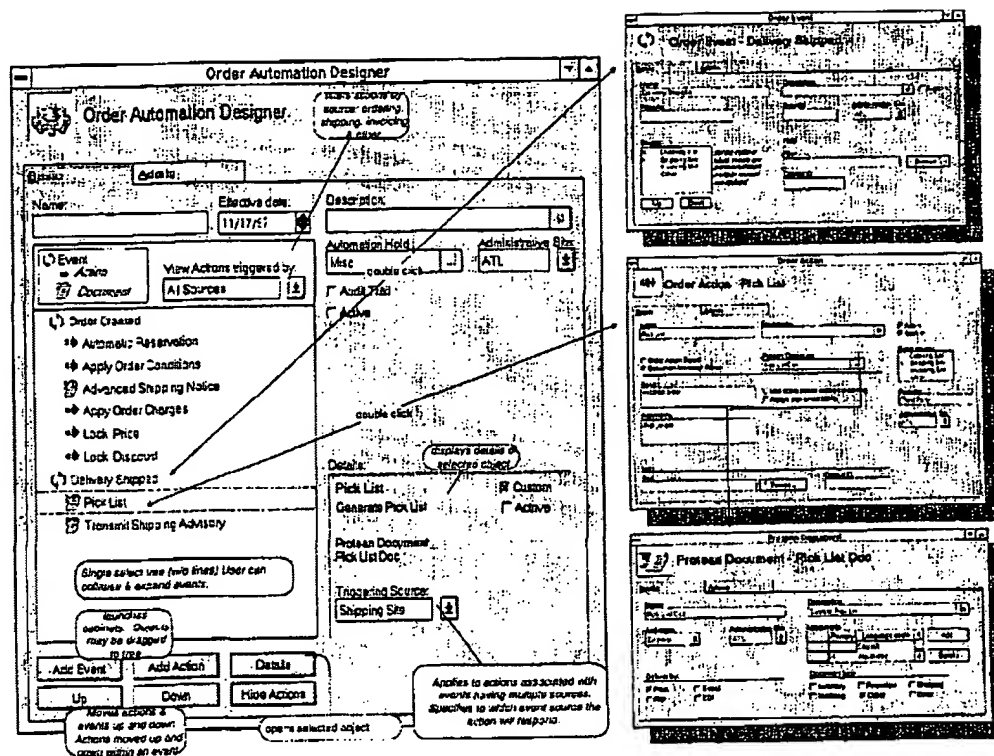


Figure 15

**Table 7: Example Order Automation Definition**

Event	Actions
Order Created	Credit Check
Delivery Entered	ATP, Price Delivery
Order Entered	Price Order, Tax Order, Apply Discounts, Queue Preship Credit Check, Send Order Acknowledgment
Delivery Reserved	Print Pick List
Order Reserved	Send Advanced Shipping Notice
Delivery Shipped	Print Bill of Lading
Order Shipped	Lock Price, Generate Invoice, Print Invoice
Preship Credit Check	Credit Check
Order Hold Applied	Test For Credit Hold Applied
Order Hold Released	Test For Credit Hold Released

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 2-12, 16-27, 31 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Marcam Solutions, Inc., WO 99/57664 (Marcam, November 1999) as applied to claims 1, 14-15, 30 and 32-33 above and further in view of official notice.

Regarding Claims 2 and 16 Marcam teaches a ordering processing system and method wherein generating a change order further comprises:

- using the existing order (object) to create a changed order (object) such that the changed/updated order (object) contains any objects/parameters/attributes contained within the existing order and has at least one attribute and an associated value (Pages 76-78; 114-116; "Category of Events", "Attribute Value Change", Page 119; Figures 1-4); and

- updating/changing (replacing (setting, revising, etc.) the changed attributes (change request, order changes, etc.) in the changed order object (i.e. replace the original values with the new values) while not changing/updating the original/existing purchase order (Pages 3-4, 45, 71, 76-78; 114-116).

Marcam does not expressly teach creating a changed purchase order by *copying the existing purchase order* to a change order object such that the change order object contains any objects/parameters/attributes contained within the existing order as claimed.

Official notice is taken that it is old and very well known in the art at the time of the invention, as cited in the previous office actions that there are a plurality approaches to creating new (modified version of existing objects) objects based on existing objects including but not limited to the use of deep copy, constructs a new compound object and then, recursively, inserts copies of the nested objects found in the original compound object into the new compound object, and shallow copy, constructs a new compound object and then inserts the same objects into in new object that are contained the original contains. These copy-then-modify techniques ensure that only the minimum amount of time is spent in creating a modified version of the original object (by only changing the modified values, instead of copying the values one at a time) and ensure that any complex relationships or attributes associated with the original object are carried over to the new modified version of the object.

It would have been obvious to one skilled in the art at the time of the invention that the order processing system and method for processing changes to orders as taught by Marcam would have benefited from and used a plurality of object-oriented techniques and/or design patterns for generating change orders including but not limited

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to creating change orders by copying the original/existing purchase order (object) and then modifying only the purchase order object attributes (values, properties, nested objects, etc.) as indicated by the customer requested changes in view of the teachings of official notice; the resultant system ensuring that any complex relationships and/or attributes associated with the original purchase order (object) are "carried over" to the new modified version of the purchase order (changed order, object).

Regarding Claims 3 and 17 Marcam teaches an order processing system and method wherein receiving a change order (change request) further comprises:

- receiving an identification of an existing purchase order (e.g. order ID) that is to be changed/updated (arguments; Paragraph 3, Page 45; Pages 114-116, 137; Figures 1-4);
- placing a hold (pause, suspend, lock, etc.) on the existing purchase order (Pages 6, 71, 110, 116);
- receiving the new value(s) (change requests, etc.; "Methods contained in the order object 16, detect changes to the information contained in it. Those methods signal events whenever changes occur that require computational processing (e.g. changes that affect order pricing), that impact order handling (e.g. changes to shipping address), or that are otherwise substantive in nature.", Paragraph 4, Page 45; Pages 3-4, 76-78; 114-116; Figure 1); and
- wherein generating the change order based on the existing purchase order further comprises for each object in the existing purchase order for which there is a new

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value by assigning the new value to the corresponding attribute (Pages 76-68; 114-116; Figures 1-4).

Marcam does not expressly teach generating a change order by *copying the existing/original purchase order* object attributes (properties, parameters, nested objects, values, etc.) as claimed.

Official notice is taken that it is old and very well known in software engineering, as cited in the previous office actions, that there are a plurality of well known approaches for creating new (modified version of existing objects) objects based on existing objects including but not limited to the use of deep copy and shallow copy as discussed above. These copy-then-modify techniques ensure that only the minimum amount of time is spent in creating a modified version of the original object (by only changing the modified values, instead of copying the values one at a time) and ensure that any complex relationships or attributes associated with the original object are carried over to the new modified version of the object.

It would have been obvious to one skilled in the art at the time of the invention that the order processing system and method for processing changes to orders as taught by Marcam would have benefited from and used a plurality of object-oriented techniques and/or design patterns for generating change orders including but not limited to creating change orders by copying the original/existing purchase order (object) and

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then modifying only the purchase order object attributes (values, properties, nested objects, etc.) as indicated by the customer requested changes in view of the teachings of official notice; the resultant system ensuring that any complex relationships and/or attributes associated with the original purchase order (object) are "carried over" to the new modified version of the purchase order (changed order, object).

Regarding Claims 4, 7-8, 18 and 21-22 Marcam teaches an order processing method and system wherein comparing the change order to the existing purchase order further comprises for each object in the existing/original purchase order object for which there is a new/updated value generating a change order result that identifies the new and original/existing values (i.e. providing the existing value/change order result for each of the multiple objects (parameters, values, line items, etc.) contained in the existing order for which the change order/request object indicates a new value or for each object (parameter, attribute) in the existing purchase order that has a different (new, updated, revised, etc.) value indicating (identifying, providing, displaying, outputting, etc.) the value of the object in the change order and the existing value of the object; "Methods contained in the order object 16, detect changes to the information contained in it. Those methods signal events whenever changes occur that require computational processing (e.g. changes that affect order pricing), that impact order handing (e.g. changes to shipping address), or that are otherwise substantive in nature.", Paragraph 4, Page 45; "A minor event not only tells us that there has been some state change on the target object but also gives us an indication of what attribute

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has been updated.”, Paragraph 1, Page 115; “Category of Events”, “Attribute Value Change”, Page 119; Pages 55, 114-116, 137).

Regarding Claims 5 and 19 Marcam teaches an order processing system and method wherein the comparing of the change request/order and the existing order is done concurrently with the step of generating the change order (synchronously, immediately, instantaneously, etc.; “immediate event processor”; Paragraphs 3-4, Page 46; Pages 47, 55; Figures 2-3).

Regarding Claims 6 and 20 Marcam teaches an order processing system and method wherein the comparing of the change request/order and the existing order is done after the steps of generating a change order/request (delayed, asynchronously; Paragraphs 3-4, Page 46; Pages 47-48, 55; Figures 2-3, 5).

Regarding Claims 9 and 23 Marcam teaches an order processing system and method wherein the change order result is formatted using at least one of text and a markup language (EDI; Page 71; GUI; Pages 114-116; Figures 15-20)

Regarding Claims 10 and 24-25 Marcam does not expressly teach that the change order result is provided in a text/markup language format based on an identity of a recipient as claimed.



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Official notice is taken that providing (displaying, sending, outputting, etc.) message (a text/markup language) in a format based on an identity (role, system type, standard, etc.) of a recipient (system, user, etc.) is old and very well known, as cited in the previous office actions.

Specifically it is old and well known in the art that EDI provides for the inter-organizational electronic exchange of business documents in a structured, machine-process able format. EDI standards permit direct computer-to-computer exchange of formatted business transactions between business partners and makes it possible for organizations to generate, receive and process large volumes of information, swiftly and with limited human intervention. EDI provides a "language" specially designed for the processing, definition and presentation of text (markup language).

Further it is well known that at either end of an EDI transaction is a translation component which converts the standard EDI format for the transaction into the business specific format necessary for completion of the transaction thereby enabling companies to transact in a common "language" without having to convert all their existing legacy systems to the common language thereby saving time, effort and money.

It would have been obvious to one skilled in the art at the time of the invention that the collaborative order management system as taught by Marcam would have benefited from generating the change order result in any of a plurality of formats including EDI messages and/or XML documents in view of the teachings of official notice; the resultant system supporting each businesses (trading partners) "unique"

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message format (language) thereby facilitating the participation of multiple business in a supply chain.

Regarding Claims 11, 26, 31 and 34 Marcam teaches an object-oriented order processing system and method for processing change orders/request comprising:

- receiving, from a customer (user, consumer, purchaser, etc.), a new value for an attribute (parameter, object, property, etc.) in an existing/original purchase order (i.e. change order, change request) wherein the purchase order is represented as an compound/composite object (Pages 114-116; Figures 1-4; "Category of Events", "Attribute Value Change", Page 119);

- using the existing purchase order to create a changed/updated order based on the original/existing order wherein the changed order contains the changed value/parameter/object and a reference (link, method, attribute) to a comparator object (order comparator object, logic, subroutine, code, module, etc.; Pages 76-78, 114-115; Figures 1-4);

- assigning the new value to the corresponding (peer) change order object parameter/property/object ("An Order Pricing Example", Pages 76-78; Pages 114-116);

- indicating (providing, displaying, outputting, etc.) to the customer the differences between the original/existing purchase order and the change order (change request, updated order, etc.) by comparing (comparison login) the two order objects and determining if any attributes (values, parameters) have changed based on the change order/request so that the customer can distinguish the differences between the

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existing/original purchase order and the changed/updated/revised purchase order ("An Order Pricing Example", Pages 76-78; Page 115; Figure 15-20).

Marcam does not expressly teach creating a change order object by copying an existing purchase order to a change order as claimed.

Official notice is taken that it is old and very well known in software engineering, as cited in the previous office actions, that there are a plurality of well known approaches for creating new (modified version of existing objects) objects based on existing objects including but not limited to the use of deep copy and shallow copy as discussed above. These copy-then-modify techniques ensure that only the minimum amount of time is spent in creating a modified version of the original object (by only changing the modified values, instead of copying the values one at a time) and ensure that any complex relationships or attributes associated with the original object are carried over to the new modified version of the object.

It would have been obvious to one skilled in the art at the time of the invention that the order processing system and method for processing changes to orders as taught by Marcam would have benefited from and used a plurality of object-oriented techniques and/or design patterns for generating change orders including but not limited to creating change orders by copying the original/existing purchase order (object) and then modifying only the purchase order object attributes (values, properties, nested

objects, etc.) as indicated by the customer requested changes in view of the teachings of official notice; the resultant system ensuring that any complex relationships and/or attributes associated with the original purchase order (object) are “carried over” to the new modified version of the purchase order (changed order, object).

Regarding Claims 12 and 27 Marcam teaches an order processing system and method wherein the comparison logic (comparison of the two orders) further comprises:

- receiving an identity (handle) of the existing/original purchase order (peer object; e.g. order ID, arguments; Paragraph 3, Page 45; Pages 114-116, 137; Figures 1-4) and changed/updated purchase order/request; and
- generating a change order result indicating the existing purchase order values and the updated/revised purchase order values by comparing an existing value from the existing/original purchase order to the new value in the change request/order (Pages 76-78, 114-116).

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Doyle et al., U.S. Patent No. 5,694,551, teach an order processing system and method wherein users of the system are provided with the ability to create, change and cancel/delete pending (on hold, paused, suspended, etc.) and active customer orders stored in a database.

- Wiecha, Charles Francis, U.S. Patent No. 5,870,717, teaches an order processing system and method that supports changes (change requests, order cancellations; e.g. add/delete line items, requested ship date, etc.), received from customers, to purchase orders and shopping carts (product clip board) through the implementation of well-known EDI standards (e.g. EDI 850/860). Wiecha further teaches that users can cancel orders if they have not been shipped and that the changes are recorded/logged for reporting purposes.

- Barnes et al., U.S. Patent No. 5,970,475, teach a purchase order processing system and method wherein the system implements/supports well known EDI standards for creating and changing/updating purchase orders (EDI 850, 860, 865). Barnes et al. further teaches that purchase order change requests indicate the line item (multiple objects in the purchase order) changes including such changes as additions, deletions or amended quantities and that the total of the purchase order will be updated to reflect the updates/changes as well as the items not changed. Barnes et al. further teach that

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the order processing system utilizes a third-party EDI translator to transform messages/system communications into and out of well known EDI formatted messages.

- Arnold et al., U.S. Patent No. 5,987,423, teach an object-oriented order (sales order, purchase order) processing system and method wherein the system supports generating new orders as well as updating existing/previous orders and further wherein orders are represented as multiple objects (order object has references to other objects that makeup the order).

- Blinn et al., U.S. Patent No. 6,058,373, teach an Internet-based object-oriented order processing system and method.

- Leonard, Timothy J., U.S. Patent no. 6,085,171, teaches an order processing system and method for processing changes to customer orders wherein the system receives change orders/requests from customer to change existing orders/services. Leonard further teaches that orders can be placed into a plurality of states including being placed on hold during the order processing process.

- Krueger et al., U.S. Patent No. 6,868,387, teach an order processing system and method wherein changes to purchase order items (e.g. line items, parts, etc.) triggers the identification and subsequent updating of purchase orders containing the updated order items.

- Gosko, Theresa M., U.S. Patent No. 6,871,187, teaches a system and method for translating/transforming/mapping order processing related communications between customer/supplier/manufacture systems enabling systems to communicate despite having different communication formats.

- Borders et al., U.S. Patent Publication No. 2001/0047285, teach an Internet-based order processing system and method wherein the system/method processes new and updated orders (order data).

- Chehade et al., U.S. Patent Publication No. 2002/0128946, teach a system and method for supporting business processes utilizing the well known RosettaNet standard, specifically RosettaNet's support for managing purchase orders and purchase order change requests. Chehade et al. further teach that the system and method for supporting business processes provides message translation in order to convert/transform messages into and out of required/specified formats.

- RosettaNet PIP3A4: Manage Purchase Order (2000) teaches a well-known standard/process definition that "specify the purchase order management process between trading partners. The management process includes the creation, change and cancellation Business Document." and further wherein business partners communicate via defined XML messages. The article further teaches that the RosettaNet specification covers purchase requests comprising of two basic types: "1. The original purchase order request with the content changed." or "2. A new change request that only contains changes to the original purchase order."

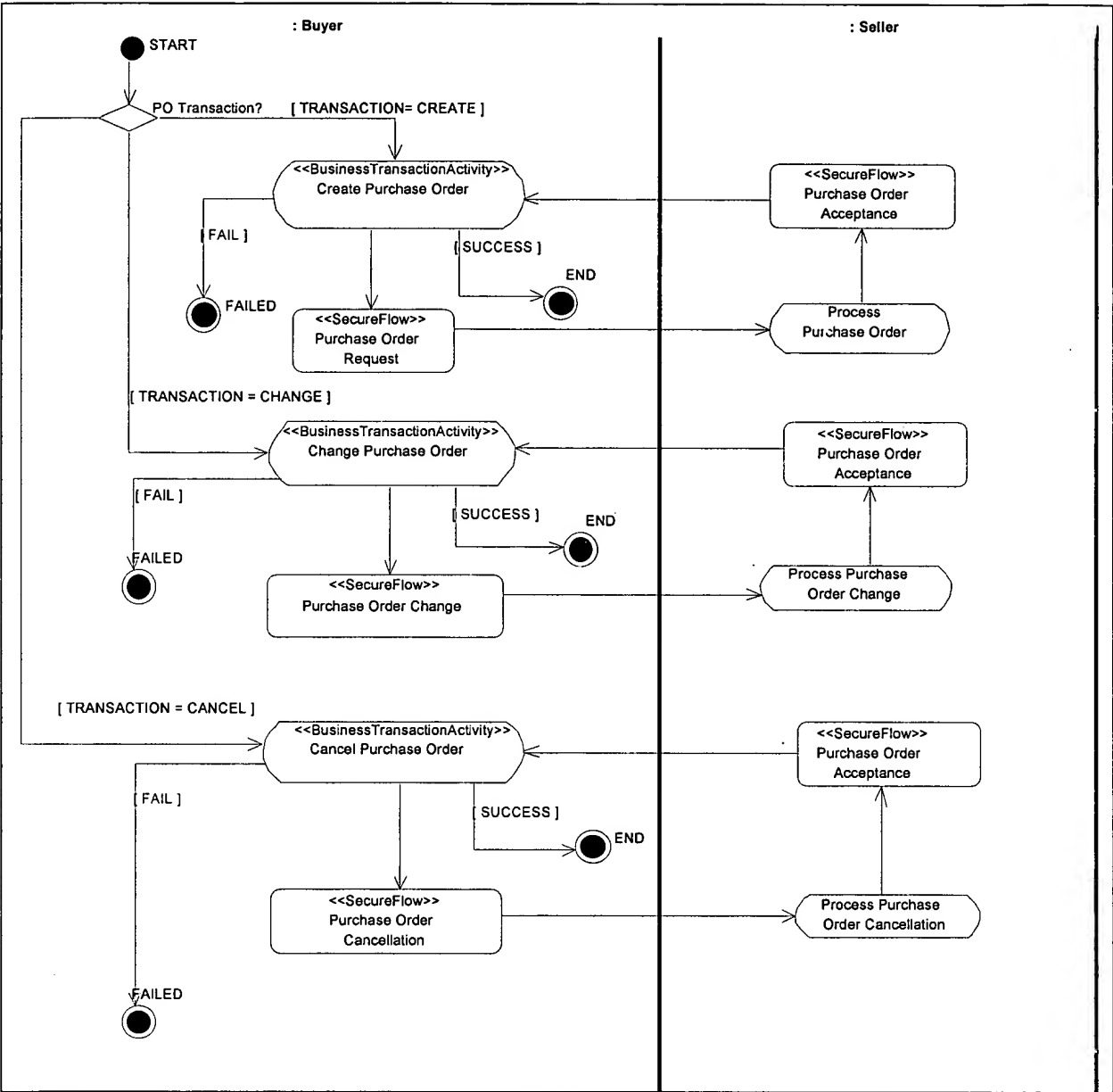


Figure 3-1: Manage Purchase Order



Figure 4-1 specifies the network components and their message exchange.

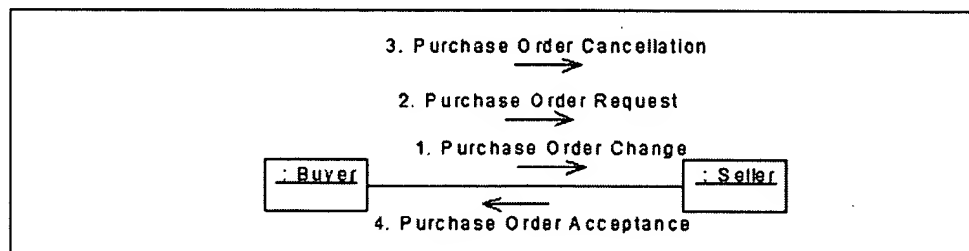


Figure 4-1: Manage Purchase Order

- RosettaNet PIP3B5: Request Shipment Change (2000), teaches a well known standard for supporting business processes wherein one of the supported business processes includes purchase order management and more specifically the process by which customers can request changes to existing purchase orders (e.g. shipment change while order is in transit) and suppliers/vendors can process (accept/reject) those change order requests.

- RosettaNet PIP3A8: Request Purchase Order Change (2001) teaches a well known standard the defines a plurality of business processes in a supply chain, specifically the process for supporting purchase order changes as art of an order management/processing process. The article further teaches that the standard "enables a buyer to change purchase order line items and obtain a quick response from the provider that acknowledges, at the line level, if the changes are accepted, rejected or pending."

- McKie, Stewart, Understanding business objects (1995) teaches the well known utilization of object-oriented programming (OO, OOP) for designing and implementing a plurality of business systems including but not limited to object-oriented order processing systems wherein purchase orders are represented as

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composite/compound objects. McKie further teaches that all business objects (e.g. purchase order objects) have lifecycles wherein changes/updates to the object trigger events that "...effect the object itself or those connected to it...."

- Coombs, Jason et al., Order Processing on Your E-Commerce Site, teach an Internet-based object-oriented order processing system and method wherein users can return to purchase orders (shopping carts) that are put on hold/suspended/not-completed in order to update/revise the purchase orders and that upon the updating of the purchase order the system determines (re-calculates) the effect of the changes in the purchase order or the system have on the purchase order (e.g. a price for a line-item in the purchase order has changed since the purchase order was last updated). Coombs et al. further teaches that the system enables users to make changes to existing orders.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott L. Jarrett whose telephone number is (571) 272-7033. The examiner can normally be reached on Monday-Friday, 8:00AM - 5:00PM.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hafiz Tariq can be reached on (571) 272-6729. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



SJ  
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TARIQ R. HAFIZ  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3600